## Visualizing and Predicting Heart Diseases with an Interactive Dash Board

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## **EXPLORATION OF CHOLESTROL BY AGE AND GENDER**

## **CHOLESTROL:**

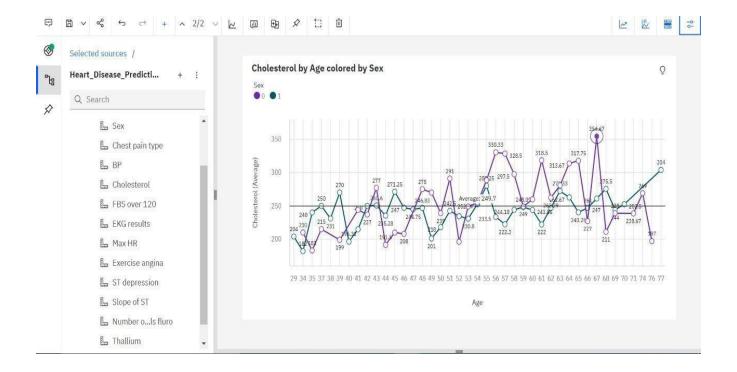
Cholesterol is a waxy, fat-like substance that's found in all the cells in your body. Your body needs some cholesterol to make hormones, vitamin D, and substances that help you digest foods. Your body makes all the cholesterol it needs. Cholesterol is also found in foods from animal sources, such as egg yolks, meat, and cheese.

If you have too much cholesterol in your blood, it can combine with other substances in the blood to form plaque. Plaque sticks to the walls of your arteries. This buildup of plaque is known as atherosclerosis. It can lead to coronary artery disease, where your coronary arteries become narrow or even blocked

Cholesterol levels tend to increase with age. Taking steps to reach or maintain healthy levels earlier in life may prevent them from becoming dangerously highover time. Years of unmanaged cholesterol levels can be challenging to treat. The CDC recommends that people aged 20 or over check their cholesterollevels every 5 years or more frequently if they have other cardiovascular risk factors.

Children are less likely to have high cholesterol, and doctors may only need to check their levelsb twice before they turn 18 years old. However, kids with risk factors for high cholestrol should have their levels checked more frequently. Typically, males tend to have higher levels throughout their lives than females. A male's cholesterol levels increase with age, and a female's cholesterol levels rise after menopause.

The following table shows the visualization of cholesterol by Age:



## Cholesterol levels for children

- According to the <u>American Academy of Pediatrics</u>, children should havetotal cholesterol readings of under 170 mg/dl.
- The borderline high range is 170–199 mg/dl, and a reading of 200 mg/dlor over is high.
- LDL cholesterol levels should be under 110 mg/dl. The borderline highrange is 110–129 mg/dl, and any reading over 130 mg/dl is high.

The table below shows healthy levels of cholesterol by age, according to the <u>National Institutes of Health (NIH)</u>. Doctors measure cholesterol in milligramsper deciliter (mg/dl).

TYPE OF CHOLESTROL	10YNA	OR		MEN OROV	AGED ER	20	WOME OVER	N AGEI 20	OR
TOTAL CHOLESRO LOL	Less mg/dl	than	170	125-20	00 mg/dl		125-20	0 mg/dl	
NON-HDL	Less mg/dl	than	120	Less mg/dl	than	130	Less mg/dl	than	130
LDL	Less mg/dl	than	100	Less mg/dl	than	100	Less mg/dl	than	100
HDL	Less mg/dl	than	45	40 mg/	dl or hig	her	50 mg/d	dl or hig	her